

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) Laser system for using nonlinear optical effects, ~~such as generating ultraviolet light, comprising at least~~

a laser setup for generating a laser beam (3),

a nonlinear optical material (1a), ~~such as a nonlinear optical crystal used for frequency conversion such as second harmonic, third harmonic, multiple harmonic generation or optical parametric oscillation or amplification.~~

an optical system with imaging means for imaging said laser beam (3) onto said nonlinear optical material (1a), which imaging means comprise

at least an optical imaging system (2) for focusing said laser beam onto the nonlinear optical material (1a) and

at least an optical means (M1) for changing the angle of the propagation axis of said laser beam (3),

whereby said optical imaging system is positioned between said optical means (M1) and said nonlinear optical material (1a), and may be described by a

$$\begin{pmatrix} AB \\ CD \end{pmatrix} - \text{matrix},$$

whereby D is substantially zero.

2. (Previously Presented) Laser system according to claim 1 characterized in that said optical means (M1) is a part of a resonator of said laser setup.

3. (Previously Presented) Laser system according to claim 1 characterized in that said laser beam (3) is reflected back onto itself after passing said nonlinear optical material (1a).

4. (Previously Presented) Laser system according to claim 3 characterized in that said laser beam (3) is reflected back onto itself by a reflective surface (7a) on the back side of said nonlinear optical material (1a).

5. (Previously Presented) Laser system according to claim 1 comprising a dichroic mirror (9) or a polarizing beam splitter.

6. (Currently Amended) Laser system according to claim 1, wherein said nonlinear optical material (1,1b) is

ea semiconductor saturable absorber; or

ea nonlinear optical crystal used for frequency conversion ~~such as second harmonic, third harmonic, multiple harmonic generation or optical parametric oscillation or amplification~~; or

elithium borate (LBO), beta-barium borate (BBO), potassium titanyl phosphate (KTP), cesium lithium borate (CLBO) or periodically poled lithium niobate (PPLN).

7. (Previously Presented) Optical system for a laser system with an optical material (1, 1b), which has limited durability under light exposure, comprising:

at least first imaging means for imaging a laser beam (3) onto said first optical material (1, 1b), which imaging means comprise

at least a first optical imaging system (2) for focusing said laser beam (3) onto said first optical material (1, 1b) and

at least a first optical means (M1) for changing the angle of the propagation axis of said laser beam (3),

whereby said first optical imaging system is positioned between said first optical means (M1) and said first optical material (1, 1b), and may be described by a

$$\begin{pmatrix} AB \\ CD \end{pmatrix} - \text{matrix},$$

whereby D is substantially zero.; and

whereby said first optical means (M1) is a part of a resonator of said laser system.

8. (Previously Presented) Optical system according to claim 7 comprising:
second imaging means for imaging said laser beam (3) onto a second optical material (1c) whereby the second imaging means comprise:

at least a second optical imaging system (2) for focusing said laser beam (3) onto the second optical material (1c) and

at least a second optical means for changing the relative position of the propagation axis of the laser beam (3), whereby said second optical imaging system is positioned between said second optical means and said second optical material (1c), and may be described by a

$$\begin{pmatrix} AB \\ CD \end{pmatrix} - \text{matrix},$$

whereby C is substantially zero.

9. (Currently Amended) Optical system according to claim 7, wherein said first optical material (1,1b) and/or said second optical material (1c) is

ea semiconductor saturable absorber; or

ea nonlinear optical crystal used for frequency conversion ~~such as second harmonic, third harmonic, multiple harmonic generation or optical parametric oscillation or amplification~~; or

lithium borate (LBO), beta-barium borate (BBO), potassium titanyl phosphate (KTP), cesium lithium borate (CLBO) or periodically poled lithium niobate (PPLN).

10. (Currently Amended) Adjustable optical means for an optical system according to claim 1, comprising
- an optical component (12), ~~such as a laser mirror or a nonlinear optical material,~~ with one or two wedged surfaces (14) and
 - a holder for said optical component (12), ~~preferably to be positioned onto an optical platform or the like,~~ comprising
 - o means for supporting said optical component (12) which supporting means comprise four defined touching surfaces (11);
 - o one recess for inserting said optical component (12);
 - o one fixing means, ~~for instance a screw (13a)~~ for fixing said optical component (12) in the recess;

wherein said optical component (12) is rotatable around its axis in said recess.

11. (Previously Presented) Adjustable optical means according to claim 10, wherein the length of said defined touching surfaces (11) is smaller than the distance between said defined touching surfaces (11).

12. (Previously Presented) Adjustable optical means according to claim 10, wherein the defined touching surfaces (11) are shaped in the form of V-grooves.

13. (Previously Presented) Adjustable optical means according to claim 10, wherein said optical component (12) and said recess are substantially cylindrical.